

Conclusion: In TTR amyloidosis, NTproBNP and troponin T are associated with LV impairment measured by echocardiography suggesting that NTproBNP could be useful in FAP carriers to start echocardiographic follow-up whereas troponin would identify patients with severe cardiac disease.

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Cardiac safety and tolerability, and effects on cardiac function of tafamidis in patients with non-V30M TTR-FAP

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Background: Transthyretin familial amyloid polyneuropathy (TTR-FAP) is an autosomal dominant disease characterized by extracellular amyloid deposition in the nerves and heart. Orthotopic liver transplant (OLT) is recommended to remove the source of mutated TTR and stop amyloid deposition. However, progressive cardiomyopathy due to continuing amyloidosis has been described following OLT in patients with non-V30M mutations. Tafamidis prevents dissociation of TTR into monomers and formation of amyloid.

Objectives: To evaluate cardiac safety and tolerability of tafamidis in patients with non-V30M TTR-FAP.

Methods: Patients (N=21) with TTR-FAP due to non-V30M TTR mutations and no OLT history were studied in a phase 2 open-label trial. Cardiac assessments included ECG, 24-hour Holter monitoring, echocardiogram, and cardiac biomarkers (troponin I and NT-pro-BNP) at baseline and 6 and 12 months.

Results: Of the 21 patients enrolled, mean (SD) age, LVEF, troponin I, and NT-pro-BNP at baseline were 63.1 (9.86) years, 60.3 (9.96)%, 0.023(0.04) ng/mL, and 1248.9 (1529.4) pg/mL, respectively. Nine patients had a history of cardiac events. Six of these 9 experienced peripheral edema or dyspnea related to heart failure while on treatment, and 3 patients were hospitalized for other cardiovascular events (AV block, coronary stenosis, TIA). Eighteen patients completed the study, with no significant changes in troponin I, LVEF, or cardiac remodeling. NT-pro-BNP, while elevated at baseline, remained stable with no clinically relevant changes. The pattern of Holter monitoring abnormalities was similar at baseline and while on treatment (eg, atrial tachycardia, 52.4% [11/21] vs 44.4% [4/9]). The percentage of patients with normal heart rate variability (HRV) increased from 21% (4/19) at baseline to 42% (8/19) at month 12.

Discussion: This study showed no deleterious effects of tafamidis on cardiac function among a cohort of treated TTR-FAP patients. The number of patients with normal HRV improved.

Conclusion: Tafamidis was safe and well tolerated in patients with non-V30M TTR-FAP.

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Left atrial enlargement in sickle cell disease patients: remodelling associated with haematological parameters or index of left ventricular filling pressures

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Pupose: Diastolic Left ventricular (LV) dysfunction is a common finding in sickle cell disease. Furthermore, left atrial (LA) size usually reflects left ventricular filling pressures.

The aim of our study was to determine if LA size is an expression of left ventricular filling pressures or reflects remodelling associated with anemia and/or haemolysis in sickle cell disease.

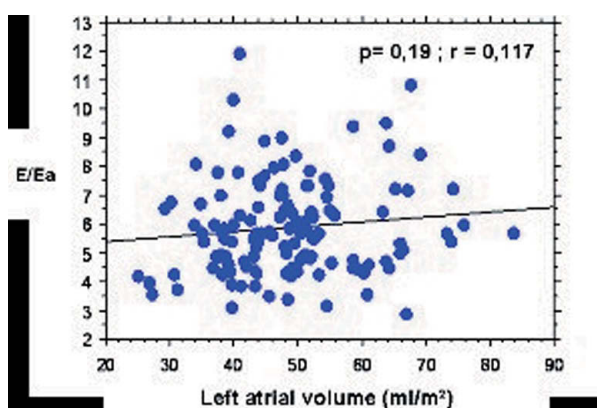
Methods: We evaluated 127 patients with sickle cell disease in stable condition (mean age 28,6±8,5 years, 83 women) and 38 age and sex-matched healthy controls. LA size was measured with Simpson's method in apical 4-chamber view. LV filling pressures were assessed using ratio between pulsed Doppler peak E velocity and peak Ea velocity obtained with tissue Doppler imaging of the lateral annulus (E/Ea ratio). Clinical and biologic data were collected from clinical records.

Results: Compared with the normal group, patients with sickle cell disease had a LA volume and E/Ea ratio significantly increased (48,4±11,2 ml/m² and 5,9±1,7 ; 30,5±7,6 ml/m² and 4,5±1, respectively, p<0.0001).

In multivariate analysis, LA enlargement in patients is only influenced by age and haematological parameters (haemoglobin and reticulocyte levels).

No correlation was found between LA volume and E/Ea ratio (figure).

Conclusion: Subjects with sickle cell disease have LA enlargement. However, in this population, LA dilatation is not an index of left ventricular filling pressures.



Figure

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Atrial flutter or fibrillation, the most frequent and life-threatening arrhythmia in myotonic dystrophy.

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Background: Several arrhythmias were reported in myotonic dystrophy (MD). The most frequent would be conduction disturbances and ventricular arrhythmias. The purpose of the study was to evaluate the prevalence of atrial flutter and fibrillation (AF) in MD and the consequences.

Methods: 157 patients, 80 men and 77 women, aged from 16 to 70 years, mean age 41±14 years, at the inclusion, were consecutively recruited for a type 1 MD. Patients were asymptomatic at the inclusion, except 4. Patients were followed during 4.5±3.5 years. ECG, left ventricular ejection fraction (LVEF) determination at echocardiography, Holter monitoring, signal-averaged ECG were obtained and repeated.

Results: 24 patients presented sustained (> 1 hour) AF or atrial flutter (n=8). The prevalence was 15%. Among these patients 2 presented a 1/1 atrial flutter associated with syncope. In one of them, 16 years old, cardiac defibrillator was implanted for a diagnosis of ventricular tachycardia, but the real diagnosis was made after inappropriate shocks. Atrial flutter ablation was performed in 4 patients but 3 of them developed AF. During follow-up, 21 patients died